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<110> Taramino, Graziana
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Meeley, Robert B.
Niu, Xiaomu

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gac Asp	gac Asp	gac Asp 195	gac Asp	ggc Gly	cgg Arg	cag Gln	ggg Gly 200	tac Tyr	ggc Gly	ttc Phe	gag Glu	gca Ala 205	gcg Ala	gcg Ala	gag Glu	624
tcc Ser 210	tcg Ser	tcg Ser	ctc Leu	ggg Gly	gcg Ala	gag Glu 215	gag Glu	agc Ser	ggg Gly	tgg Trp	agg Arg 220	tcg Ser	tcg Ser	tcg Ser	ggg Gly	672
tac Tyr 225	caa Gln	gac Asp	tgc Cys	gag Glu	gac Asp 230	ctg Leu	cag Gln	agc Ser	gtg Val	gct Ala 235	tac Tyr	gct Ala	tac Tyr	ctg Leu	aac Asn 240	720
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 35 40 45
 Val Ser Lys Leu Leu Ala His Leu Pro Leu Ala Asp Arg Ala Glu Ala
 50 55 60
 Ala Val Thr Ile Ser Tyr Glu Ala Gln Ala Arg Leu Arg Asp Pro Ile
 65 70 75 80
 Tyr Gly Cys Val Ala His Ile Phe Ala Leu Gln Gln Gln Val Met Thr
 85 90 95
 Leu Gln Ala Gln Leu Ala Ser Leu Lys Ala Gln Ala Ala Gln Gly Gln
 100 105 110
 Gln Gly Val His Glu Asp Ala Lys Gly Tyr Val Gly Ser Ala Ala Ala
 115 120 125
 Glu Gln Leu Gly Tyr Gly Tyr Pro Trp Cys Ser Gly Asn Gly Gly Ala
 130 135 140
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 145 150 155 160
 Tyr Gly Asn Gly Ala His Glu Ser Leu Thr Ala Leu Leu Gly Ser Ser
 165 170 175
 Asp Tyr Met Gln Gln Ser Leu Tyr His Ala Phe Glu Gln Ala Gly Ala
 180 185 190
 Asp Asp Asp Asp Gly Arg Gln Gly Tyr Gly Phe Glu Ala Ala Ala Glu
 195 200 205
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 His Arg Ser

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Gly Ala Ala His Phe Ala Ala Ile His Lys Val Phe Gly Ala Ser Asn	
35 40 45	
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Val Ser Lys Leu Leu Ala His Leu Pro Leu Ala Asp Arg Pro Glu Ala	
50 55 60	
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65 70 75 80	
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Tyr Gly Cys Val Ala His Ile Phe Ala Leu Gln Gln Gln Val Met Thr	
85 90 95	
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Leu Gln Ala Gln Leu Ala Ser Leu Lys Ala Ala Ala Ala Gln Gly Ile	
100 105 110	
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His His Gln Asp Val Gly Ala Thr Thr Lys Gly Gly Tyr Met Ser Ala	
115 120 125	
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130 135 140	
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Trp Cys Gly Ser Asn Gly Gly Gly Ala Pro Ala Ala Ser Gln Pro Gly	
145 150 155 160	
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Ala Tyr Ser Ser Asn Gly Gly Ala Gly His Gly His Asp Ser Ile Thr	
165 170 175	
gcg ctg ctg gcg gcc ggg tcg gac tac atg cag cac tcg ctg tac cac	576
Ala Leu Leu Ala Ala Gly Ser Asp Tyr Met Gln His Ser Leu Tyr His	
180 185 190	
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225 230 235 240	
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Asn Arg Ser

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<213> Oryza sativa

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35 40 45

Val Ser Lys Leu Leu Ala His Leu Pro Leu Ala Asp Arg Pro Glu Ala
50 55 60

Ala Val Thr Ile Ser Tyr Glu Ala Gln Ala Arg Leu Arg Asp Pro Ile
65 70 75 80

Tyr Gly Cys Val Ala His Ile Phe Ala Leu Gln Gln Gln Val Met Thr
85 90 95

Leu Gln Ala Gln Leu Ala Ser Leu Lys Ala Ala Ala Ala Gln Gly Ile
100 105 110

His His Gln Asp Val Gly Ala Thr Thr Lys Gly Gly Tyr Met Ser Ala
115 120 125

Ala Ala Thr Ala Ala Asp Asp Gln Leu Gly Tyr Gly Gly Tyr Asn Gln
130 135 140

Trp Cys Gly Ser Asn Gly Gly Gly Ala Pro Ala Ala Ser Gln Pro Gly
145 150 155 160

Ala Tyr Ser Ser Asn Gly Gly Ala Gly His Gly His Asp Ser Ile Thr
165 170 175

Ala Leu Leu Ala Ala Gly Ser Asp Tyr Met Gln His Ser Leu Tyr His
180 185 190

Ala Phe Glu His Ser Glu Gly Ala Gly Ala Val Asp Asp Gly His Ala
195 200 205

Ala Ala Ala Ala Phe Glu Ala Ala Ala Glu Ser Ser Ser Cys Gly Met
210 215 220

Ala Ala Ser Phe Ala Ala Asp Glu Ser Val Trp Arg Ser Ser Ser Ser
Page 11

225 230 235 240

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Asn Arg Ser

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Gly Ala Ala His Phe Ala Ala Ile His Lys Val Phe Gly Ala Ser Asn
 35 40 45

Val Ser Lys Leu Leu Ala His Leu Pro Leu Ala Asp Arg Xaa Glu Ala
 50 55 60

Ala Val Thr Ile Ser Tyr Glu Ala Gln Ala Arg Leu Arg Asp Pro Ile
 65 70 75 80

Tyr Gly Cys Val Ala His Ile Phe Ala Leu Gln Gln Gln Val Met Thr
 85 90 95

Leu Gln Ala Gln Leu Ala Ser Leu Lys Ala Xaa Ala Ala Gln Gly
 100 105 110

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Xaa Ala Xaa Ala Ala
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<211> 24

<212> DNA

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<400> 18

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24

<210> 19

<211> 24

<212> DNA

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<400> 19

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24

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Gly Ala Ala His Phe Ala Ala Ile His Lys Val Phe Gly Ala Ser Asn
35 40 45

Val Ser Lys Leu Leu Ala His Leu Pro Leu Ala Asp Arg Pro Glu Ala
50 55 60

Ala Val Thr Ile Ser Tyr Glu Ala Gln Ala Arg Leu Arg Asp Pro Ile
65 70 75 80

Tyr Gly Cys Val Ala His Ile Phe Ala Leu Gln Gln Gln Val Arg Ile
85 90 95

Val His Ser Ile Asp Val Ser Leu Val Gly Val Ala Gly Leu Leu Ile
100 105 110

Leu Val Ser Arg Arg Val Phe Glu Gln Val Met Thr Leu Gln Ala Gln
115 120 125

Leu Ala Ser Leu Lys Ala Ala Ala Ala Gln Gly Ile His His Gln Asp
130 135 140

Val Gly Ala Thr Thr Lys Gly Gly Tyr Met Ser Ala Ala Ala Thr Ala
145 150 155 160

Ala Asp Asp Gln Leu Gly Tyr Gly Gly Tyr Asn Gln Trp Cys Gly Ser

165

170

175

Asn Gly Gly Gly Ala Pro Ala Ala Ser Gln Pro Gly Ala Tyr Ser Ser
180 185 190

Asn Gly Gly Ala Gly His Gly His Asp Ser Ile Thr Ala Leu Leu Ala
195 200 205

Ala Gly Ser Asp Tyr Met Gln His Ser Leu Tyr His Ala Phe Glu His
210 215 220

Ser Glu Gly Ala Gly Ala Val Asp Asp Gly His Ala Ala Ala Ala Ala
225 230 235 240

Phe Glu Ala Ala Ala Glu Ser Ser Ser Cys Gly Met Ala Ala Ser Phe
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Cys Glu Asp Leu Gln Ser Val Ala Tyr Ala Tyr Leu Asn Arg Ser
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<213> Arabidopsis thaliana

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Cys His Glu Gln Gly Ala Ser His Phe Ala Ala Ile His Lys Val Phe
35 40 45

Gly Ala Ser Asn Ala Ser Lys Leu Leu Ser His Leu Pro Ile Ser Asp
50 55 60

Arg Cys Glu Ala Ala Ile Thr Ile Ser Tyr Glu Ala Gln Ala Arg Leu
65 70 75 80

Gln Asp Pro Ile Tyr Gly Cys Val Ser His Ile Phe Ala Leu Gln Gln
85 90 95

Gln Val Val Asn Leu Gln Ala Glu Leu Glu Ile Leu Lys Gln Gln Ala
Page 18

100

105

110

Ala Gln Ser Met Ile Phe Ala Asp Ser Pro Thr Ser Glu Asn Pro Asn
 115 120 125

Ser Tyr Tyr Gly Asp Thr Thr Lys Ala Pro Tyr His His Asp His Gln
 130 135 140

Asn Ile Tyr His His His Asp Gln Thr His Leu Val Tyr Gln Thr Gly
 145 150 155 160

Ser Ser Gly Thr Val Gln His Gly Asp Ala Thr Glu Ser Ser Tyr His
 165 170 175

Asn Glu Thr Ser Ser Gly Met Gly Glu Phe Ser Ile Tyr Ser Asp Leu
 180 185 190

Glu Gln His Leu Asn Thr Phe Asn Gln Asp His Leu Lys Glu Leu Gln
 195 200 205

Ser Ala Asn Phe Gly Tyr Ile Ser Phe Ser
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Lys Cys Val Arg Gly Cys Val Phe Ala Pro Tyr Phe Cys His Glu Gln
20 25 30

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Gly Ala Ala His Phe Ala Ala Ile His Lys Val Phe Gly Ala Ser Asn
35 40 45

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Val Ser Lys Leu Leu Ala His Leu Pro Leu Ala Asp Arg Ala Glu Ala
50 55 60

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65 70 75 80

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Tyr Gly Cys Val Ala His Ile Phe Ala Leu Gln Gln Gln Val Met Thr
85 90 95

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Leu Gln Ala Gln Leu Ala Ser Leu Lys Ala Gln Ala Ala Gln Gly Gln
100 105 110

cag ggc gtg cac gaa gac gcc aag ggc tac gtg ggc agc gcc gcc gcg 384
Gln Gly Val His Glu Asp Ala Lys Gly Tyr Val Gly Ser Ala Ala Ala
115 120 125

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Glu Gln Leu Gly Tyr Gly Tyr Pro Trp Cys Ser Gly Asn Gly Gly Ala
130 135 140

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 Page 24

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55

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